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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/460,186	06/02/1995	REID VON BORSTEL	1331-138	5103

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EXAMINER	
OLSON, ERIC	

ART UNIT	PAPER NUMBER
1623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	08/460,186	VON BORSTEL ET AL.	
	Examiner	Art Unit	
	Eric S. Olson	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-16,18 and 20-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-11,14-16,18 and 20-25* is/are rejected.

7)☒ Claim(s) *12 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

This office action is a response to applicant's communication submitted September 29, 2008 wherein claims 1, 14-16, 18, and 20-22 are amended and claims 2, 17, and 19 are cancelled. This application is a divisional application of US application 08/176485, now US patent 5736531, filed December 30, 1993, which is a continuation in part of US application 08/061381, now abandoned, filed May 15, 1993, which is a continuation in part of US application 07/903107, filed June 25, 1992, now abandoned, which is a continuation in part of US application 07/724340, now abandoned, filed July 5, 1991, which is a continuation in part of US applications 07/438493, now abandoned, filed June 26, 1990, and 07/487984, now abandoned, filed February 5, 1990, both of which are continuations in part of US applications 07/115929 and 07/115923 respectively, now abandoned, both filed October 28, 1987.

Claims 1, 3-16, 18, and 20-25 are pending in this application.

Claims 1, 3-16, 18, and 20-25 as amended are examined on the merits herein.

Priority

Parent applications 07/438493, 07/487984, 07/115929, and 07/115923, to which priority is claimed, fail to provide adequate written description for any of the instant claims. Specifically, while these parent applications teach various acylated uridine and cytidine derivatives, they do not teach a method of using these derivatives for treating toxicity due to **a pyrimidine nucleoside analog**, much less the specific pyrimidine nucleoside analogs recited in the dependent claims. Furthermore they also fail to

disclose coadministering these compounds with inhibitors of uridine phosphorylase, cytidine deaminase, or nucleoside transport.

In addition, the parent application 07/724340 fails to provide written description for the subject of claims 7 and 13, namely a method of treating toxicity due to an antimalarial agent such as 5-fluoroorotate.

Therefore the effective filing date of the claims 1, 3-6, 8-12, 14-16, 18, and 20-25 is seen to be the filing date of parent application 07/724340, July 5, 1991, while the effective filing date of claims 7 and 13 is seen to be the filing date of parent application 07/903107, June 25, 1992.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-25 under 35 USC 112, first paragraph, for lacking enablement for a method of preventing toxicity due to a pyrimidine nucleoside, has been fully considered and found to be persuasive to remove the rejection as the claims have been amended to no longer recite methods of prevention. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-5, 8, 10, and 11 under 35 USC 103(a) for being obvious over Kawaguchi et al., has been fully considered and found to be persuasive to remove the rejection as the claims have been amended to require that the therapeutic agent be

an **acylated** derivative of uridine or cytidine, that is one bearing only acyl modifications rather than fluoro- modifications. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-5, 8, 10, 11, and 17 under 35 USC 103(a) for being obvious over Takai et al., has been fully considered and found to be persuasive to remove the rejection as one of ordinary skill in the art would not have considered uridine and thymidine nucleosides to be interchangeable. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 18 and 19 under 35 USC 103(a) for being obvious over Kawaguchi et al. in view of Chu et al., has been fully considered and found to be persuasive to remove the rejection as the claims have been amended to require that the therapeutic agent be an **acylated** derivative of uridine or cytidine, that is one bearing only acyl modifications rather than fluoro- modifications. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 18 and 19 under 35 USC 103(a) for being obvious over Takai et al. in view of Chu et al., has been fully considered and found to be persuasive to remove the rejection as one of ordinary skill in the art would not have considered uridine and thymidine nucleosides to be interchangeable. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-6, and 10-12 under 35 USC 103(a) for being obvious over Kawaguchi et al. '162, has been fully considered and found to be persuasive to remove the rejection as the claims have been amended to require that the therapeutic agent be an **acylated** derivative of uridine or cytidine, that is one bearing only acyl modifications rather than fluoro- modifications. Therefore the rejection is withdrawn.

Applicant's arguments, submitted September 29, 2008, with respect to the rejection of instant claims 1-10 and 14-25 under the doctrine of obviousness-type double patenting for claiming the same invention as claims 1-23 of US patent 5968914, has been fully considered and found to be persuasive to remove the rejection as this patent issued from a continuation of 08/176485, of which the present application is a divisional application. Furthermore, the instantly claimed subject matter was restricted from the subject matter of 5968914 in the parent application. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-5 and 8-11 under the doctrine of obviousness-type double patenting for claiming the same invention as claims 3, 4, and 8 of US patent 6743782, has been fully considered and found to be persuasive to remove the rejection as the

claims no longer encompass acylated deoxy- nucleosides. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-5 and 8-11 under the doctrine of obviousness-type double patenting for claiming the same invention as claims 1, 4, and 5 of US patent 6103701, has been fully considered and found to be persuasive to remove the rejection as the claims no longer encompass acylated deoxy- nucleosides. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-5 and 8-11 under the doctrine of obviousness-type double patenting for claiming the same invention as claims 9-12 and 22-25 of US patent 6306834, has been fully considered and found to be persuasive to remove the rejection as the claims no longer encompass acylated deoxy- nucleosides. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-5 and 8-11 under the doctrine of obviousness-type double patenting for claiming the same invention as claims 1-11 of US patent 6348451, has been fully considered and found to be persuasive to remove the rejection as the claims

no longer encompass acylated deoxy- nucleosides. Therefore the rejection is withdrawn.

Applicant's amendment, submitted September 29, 2008, with respect to the rejection of instant claims 1-5, 8-11, and 14 under the doctrine of obviousness-type double patenting for claiming the same invention as claims 1-7 of US patent 6329350, has been fully considered and found to be persuasive to remove the rejection as claims 1-7 of '350 do not teach methods wherein the subject would be suffering from pyrimidine analog toxicity. Therefore the rejection is withdrawn.

The following new grounds of rejection are introduced:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 11 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the various specific compounds recited, does not reasonably provide enablement for <u>any</u> <u>prodrugs</u> of 5-fluorouracil or 5-fluorouridine. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The Applicant's attention is drawn to *In re Wands*, 8 USPQ2d 1400 (CAFC1988) at 1404 where the court set forth eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApls 1986) at 547 the court recited eight factors:

(1) The nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

Nature of the invention: The claimed invention is a method of treating toxicity due to a chemical compound. In order to be enabled for the full range of the invention, one skilled in the art must be able to determine the full scope of which chemical compounds produce toxicity that can be treated.

The state of the prior art: 5-fluorouracil, 5-fluorouridine, and similar compounds are known in the art and are recognized as having useful biological activities, particularly for the treatment of cancer. Prodrugs of these compounds are not known in the art.

Various types of prodrugs exist in the prior art, which are used to produce different active agents *in vivo*. According to Silverman et al., (Reference included with PTO-892) prodrugs include esters, amides, Schiff bases, oximes, acetals, enol esters, redox-activated protecting groups, polymer-bound drugs, bioprecursors, N- or O-alkylated drugs, azo compounds, sulfoxides, disulfides, phosphorylation substrates, and carboxylates, among others.

The relative skill of those in the art: The relative skill in the art is high.

The predictability or unpredictability of the art: As discussed above, there exist many different strategies by which one could attempt to generate a prodrug of a known compound. The appropriate prodrug for a particular application depends on various factors such as the compound being modified, the condition to be treated, the tissue to be affected, the species of the patient, and the desired rate of release. Because there exist many different strains of infectious bacteria and possible locations of infection, many different prodrug modifications must be considered to determine the optimal prodrug for each situation.

Furthermore, because the activation of a prodrug depends on its being metabolized *in vivo* by an enzyme, knowledge of the *in vivo* prodrug activity of a compound requires knowledge of the vast array of metabolic enzymes which are capable of acting on it. In order to know every possible prodrug of a compound, one must first know every enzyme which could potentially convert some other compound into that compound. Thus the design of prodrugs is complex and unpredictable.

The Breadth of the claims: The claimed invention encompasses any compound which is metabolized, in whole or in part, into a compound of formula I when administered to any living subject, whether plant animal, or other.

The amount of direction or guidance presented: Applicant's specification mentions prodrugs in passing and does not give any guidance as to which compounds are prodrugs.

The presence or absence of working examples: No working examples of prodrugs are provided.

Note that lack of working examples is a critical factor to be considered, especially in a case involving an unpredictable and undeveloped art such as prodrug design. See MPEP 2164.

The quantity of experimentation necessary: One of ordinary skill in the art, in order to practice the claimed invention over its full range, would have to determine the full range f prodrugs of 5-fluorouracil and 5-fluorouridine. Thus one skilled in the art would have to determine which compounds are in fact prodrugs of these active agents. For most derivatives of 5- fluorouracil and 5- fluorouridine, it is unknown whether they are or are not useful as prodrugs. Gathering this data for every compound fitting this description would involve *in vitro* screening of an large diversity of chemical compounds for the desired enzymatic transformation, as well as *in vivo* testing of compound involving either human or animal subjects to determine therapeutic utility. *In vitro* testing requires that the compounds to be tested be synthesized and subjected to an appropriate screening method. Synthesis of diverse chemical structures requires novel and unpredictable experimentation in order to develop suitable synthetic methods. *In vivo* animal experiments include, along with induction of the disease state, administration of the potential pharmaceutical compound and collection and analysis of data, additional burdens associated with compliance with animal welfare regulations, care, feeding, and other maintenance of the animals, and disposal of dead animals after the protocol is finished. Human tests impose even greater ethical and regulatory

burdens, as well as additional difficulty locating subjects. Because of the unpredictability of the art and the lack of comprehensive working examples covering any significant portion of the total number of potential prodrugs, these animal experiments would need to be repeated hundreds of times, and involve the maintenance, killing, dissection, and disposal of thousands of experimental animals, to establish the activity or lack thereof of every potential prodrug, thus presenting an a burden of undue experimentation to anyone practicing the invention with the full range of prodrugs claimed.

Genentech, 108 F.3d at 1366, sates that, "a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion." And "patent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable."

Therefore, in view of the Wands factors, as discussed above, particularly the breadth of the claims and the unpredictability of the art, Applicants fail to provide information sufficient to practice the claimed invention for methods of treating toxicity due to prodrugs of 5- fluorouracil or 5- fluorouridine.

The following rejections of record in the previous office action are maintained:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-10, 14-16, 18, and 20-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are directed toward a method of treating toxicity due to a pyrimidine nucleoside **analog**. It is not clear what is meant by an analog or derivative. One skilled in the art would consider the term "analog" as referring to compounds bearing some sort of structural similarity to pyrimidine nucleosides. However, one skilled in the art would not be able to clearly and distinctly determine what compounds bear sufficient similarity to be considered to be derivatives or analogs. In the absence of any way of clearly and distinctly defining the boundaries of this class of compounds, these claims are indefinite.

Response to Argument: Applicant's arguments, submitted September 29, 2008, with respect to the above ground of rejection, have been fully considered and not found to be persuasive to remove the rejection. Applicant argues that the terms "acyl derivative" and "pyrimidine nucleoside analog" are adequately defined on pp. 21-22 of the specification. However, while this is seen to be the case for acyl derivatives, the definition of pyrimidine nucleoside analogs on p. 22 merely states that they are any pyrimidine nucleosides that are modified in any manner other than acylation or attachment of biologically labile substituents. This definition is sufficiently vague that one skilled in the art would still not be able to determine the limits of the claimed subject matter. Therefore the rejection is deemed proper and maintained.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 20, 22, 24, and 25 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for methods involving certain specific uridine phosphorylase inhibitors, cytidine deaminase inhibitors, nucleoside transport inhibitors, enhancers of hematopoiesis, and enhancers of uptake and phosphorylation of nucleosides, such as those recited in instant claims 19, 21, and 23, does not reasonably provide enablement for methods involving administering all possible compounds of these types. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The Applicant's attention is drawn to *In re Wands*, 8 USPQ2d 1400 (CAFC1988) at 1404 where the court set forth eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApls 1986) at 547 the court recited eight factors:
(1) The nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

Nature of the invention: The claimed method is a therapeutic method comprising administering several active agents. In order to be enabled to practice a therapeutic

method, one skilled in the art must be able to readily determine which compounds are useful in the claimed method and to obtain said compounds.

The state of the prior art: It is well known in the prior art that certain compounds are uridine phosphorylase inhibitors, cytidine deaminase inhibitors, nucleoside transport inhibitors, enhancers of hematopoiesis, and enhancers of uptake and phosphorylation of nucleosides. However, the prior art does not reveal the full scope of all possible compounds having these activities, or provide any formula or other means by which one skilled in the art could determine the full scope of which compounds are reasonably considered to have any of the recited activities.

The relative skill of those in the art: The relative skill of those in the art is high.

The predictability or unpredictability of the art: Although compounds having a similar structure are usually expected to possess similar biological activity, it does not therefore follow that one can predict all of the biological activities of a particular novel compound merely by contemplating the structure. Rather, in order to determine the full scope of a particular class of compounds (e.g. uridine phosphorylase inhibitors) one skilled in the art would have to obtain and test a wide range of unrelated compounds for the desired activities.

Still further, there exist many potential compounds that are difficult to obtain. Not all compounds that could be conceivably evaluated as therapeutic agents can be obtained commercially or synthesized without unpredictable experimentation. Rather, some of these compounds would require a difficult process of unpredictable experimentation in order to develop a novel synthesis whereby they could be

manufactured. This process would have to be repeated many times in order to obtain a set of compounds that is fully representative of the full range of available chemical diversity.

The Breadth of the claims: The claimed invention is very broad, encompassing methods of administering a pyrimidine nucleoside and an acylated non-methylated pyrimidine in which in which any additional compound that happens to be a uridine phosphorylase inhibitor, cytidine deaminase inhibitor, nucleoside transport inhibitor, enhancer of hematopoiesis, or enhancer of uptake and phosphorylation of nucleosides

The amount of direction or guidance presented: Applicant's specification discloses that uridine phosphorylase inhibitors, cytidine deaminase inhibitors, nucleoside transport inhibitors, enhancers of hematopoiesis, and enhancers of uptake and phosphorylation of nucleosides can enhance the activity of, or reduce the toxicity of, pyrimidine nucleoside analogs. The specification does not provide any guidance for the discovery and testing of novel compounds of these classes that are not already known in the art.

The presence or absence of working examples: While the specification provides working examples demonstrating the utility of certain acylated pyrimidines for reversing the toxicity from nucleoside analog chemotherapeutic and antiviral agents, no working examples are provided demonstrating the utility of any particular uridine phosphorylase inhibitors, cytidine deaminase inhibitors, nucleoside transport inhibitors, enhancers of hematopoiesis, or enhancers of uptake and phosphorylation of nucleosides for this purpose.

Note that lack of working examples is a critical factor to be considered, especially in a case involving an unpredictable and undeveloped art such as the discovery of novel compounds. See MPEP 2164.

The quantity of experimentation necessary: One of ordinary skill in the art, in order to practice the claimed invention with the full range of uridine phosphorylase inhibitors, cytidine deaminase inhibitors, nucleoside transport inhibitors, enhancers of hematopoiesis, and enhancers of uptake and phosphorylation of nucleosides beyond the meager number disclosed in the specification would be required to test potential compounds *in vivo* to determine whether a particular compound is useful in one of these roles. According to the 2006 Chemical Abstracts catalog, (Reference included with PTO-892) The Chemical Abstracts Registry contains entries for approximately 26 million compounds, all of which are potentially included in the claimed invention if they happen to have one of the desired activities. For most compounds, it is unknown whether they are or are not useful as uridine phosphorylase inhibitors, cytidine deaminase inhibitors, nucleoside transport inhibitors, enhancers of hematopoiesis, or enhancers of uptake and phosphorylation of nucleosides. Gathering this data for every compound known to man would involve *in vitro* screening of an enormous diversity of chemical compounds for the recited activities, as well as *in vivo* testing of compounds having this activity involving either human or animal subjects to determine therapeutic utility. *In vitro* testing requires that the compounds to be tested be synthesized and subjected to an appropriate screening method. As described earlier, synthesis of diverse chemical structures requires novel and unpredictable experimentation in order to develop suitable

synthetic methods. *In vivo* animal experiments include, along with induction of the disease state, administration of the potential pharmaceutical compound and collection and analysis of data, additional burdens associated with compliance with animal welfare regulations, care, feeding, and other maintenance of the animals, dissection of dead animals to collect data, and disposal of dead animals after the protocol is finished. Human tests impose even greater ethical and regulatory burdens, as well as additional difficulty locating subjects. Because of the unpredictability of the art and the lack of comprehensive working examples covering any significant portion of the total number of potential compounds, these animal experiments would need to be repeated hundreds of times, and involve the maintenance, killing, dissection, and disposal of thousands of experimental animals, to establish the activity or lack thereof of every possible potential therapeutic agent, thus presenting an a burden of undue experimentation to anyone practicing the invention with the full range of compounds claimed.

Genentech, 108 F.3d at 1366, sates that, "a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion." And "patent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable."

Therefore, in view of the Wands factors, as discussed above, particularly the breadth of the claims and the lack of guidance or working examples, Applicants fail to provide information sufficient to practice the claimed invention for all possible uridine phosphorylase inhibitors, cytidine deaminase inhibitors, nucleoside transport inhibitors,

enhancers of hematopoiesis, and enhancers of uptake and phosphorylation of nucleosides.

Response to Argument: Applicant's arguments, submitted September 29, 2008, with respect to the above ground of rejection, have been fully considered and not found to be persuasive to remove the rejection. While the rejection is no longer applied against amended claim 18, it is maintained against all other rejected claims. Applicant argues that these claims depend from claim 1 which is not rejected under these grounds. However, merely depending from an enabled claim does not thereby render a claim enabled. These claims are rejected because they introduce additional components into the reaction mixture that would require undue experimentation to make and use. Therefore methods including these additional components are seen to be non-enabled even though the base claim is not rejected on these ground. For this reason the rejection is deemed proper and maintained.

Conclusion

Claims 1, 3-11, 14-16, 18, and 20-25 are rejected. Claims 12 and 13 are objected to for depending from a rejected base claim but would be allowable if rewritten in independent form incorporating all the limitations of the rejected base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric S. Olson whose telephone number is 571-272-9051. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on (571)272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric S Olson/
Examiner, Art Unit 1623
12/19/2008

/Shaojia Anna Jiang/
Supervisory Patent Examiner, Art Unit 1623